UNIVERSITY OF GENOA
DEPARTMENT OF INFORMATICS, BIOENGINEERING, ROBOTICS AND SYSTEMS ENGINEERING
MASTER'S PROGRAM IN BIOENGINEERING

Thesis Project Form

Title (tentative): Computational models for the treatment of refractory epilepsy with deep brain stimulation

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Description

Motivation and application domain

The program aims to conduct a comprehensive analysis of EEG data obtained from patients with epilepsy and subsequently develop a sophisticated computational model for the optimization of treatment through Deep Brain Stimulation (DBS).

General objectives and main activities

Deepen the understanding of specific clinical and engineering topics, such as, on the clinical side,epilepsy and its treatment with deep brain stimulation, and, on the engineering side, multiscale computational models, and EEG data analysis.

Training Objectives (technical/analytical tools, experimental methodologies)

Data analysis, EEG experimental procedures, Neurophysiological signals processing

Place(s) where the thesis work will be carried out: University of Twente, NL

Additional information

Maximum number of students: 1